

Description of a New Species of the Genus *Proceratium* ROGER from Taiwan (Hymenoptera, Formicidae)

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Abstract One new species of the ant genus *Proceratium*, *P. formosicola* sp. nov., from Taiwan is described and illustrated on the basis of the worker and the female.

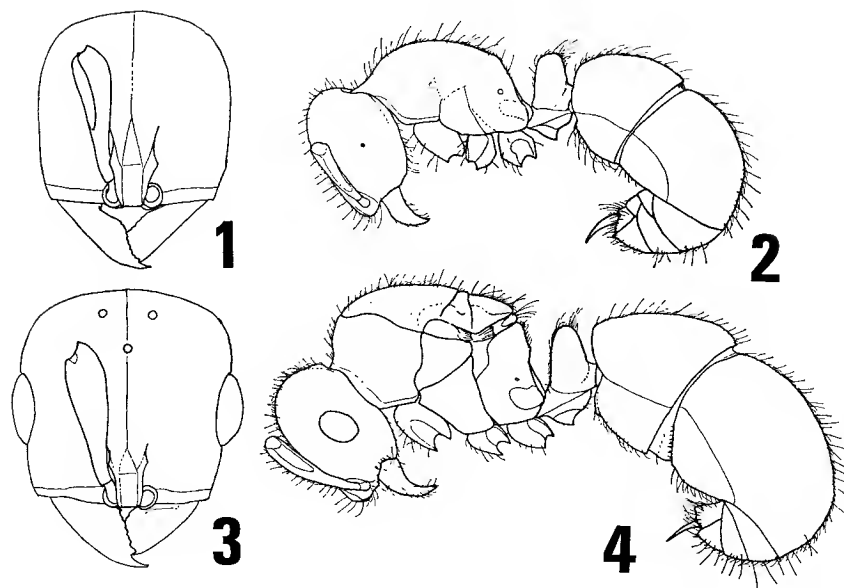
The genus *Proceratium* ROGER is widely spread through the North temperate to tropical zone of the world. This genus has been known by 26 species of the world, including 8 species from Southeast Asia. Also, the genus is characteristic as follows: 1. Terminal segments of gaster strongly curved forwards beneath the enlarged anterior segments. 2. Lobes of frontal carinae more or less sharply raised. 3. Condylar bulbs of the antennae completely or nearly completely open. 4. Apical segment of antennae not bulbous, at most moderately enlarged.

In the present paper, the author describes a new species of *Proceratium* from Taiwan.

Proceratium formosicola sp. nov.

Worker. Head length (HL) 0.45 mm; head width (HW) 0.60–0.63 mm; scape length (SL) 0.43 mm; cephalic index (CI: $HW \times 100 / HL$) 92–97; scape index (SI: $SL \times 100 / HW$) 68–72; WEBER's length of alitrunk (WL) 0.80–0.83 mm; alitrunk width (AW) 0.48 mm; petiolar node length (PNL) 0.16–0.18 mm; petiole height (PH) 0.43 mm; dorsal petiole width (DPW) 0.30 mm; total length (TL) *ca.* 2.3 mm.

Head square, very slightly longer than wide, with approximately straight and sub-parallel sides, and convex occipital border; postero-lateral border moderately rounded, not angulated (Fig. 1). Mandibles triangular, with oblique masticatory margins set with projecting apical tooth; rest of teeth small and blunt. Eyes small, consist of single or 2 facets; situated laterally about $0.48 \times$ the distance from occipital corner to anterior cephalic corner. Antennae 12-segmented; scape short and club shaped; 2nd–11th segments broader than long, gently incrassate toward apex; apical segment much longer and thicker, $1.9 \times$ as long as broad. Anterior border of clypeus straight. Alitrunk convex in profile; propodeal declivity straight, lateral border of the metanotal groove slightly convex. Petiolar node scale-like shape, truncate; subpetiolar process well developed and triangular, tip turned backward. Dorsal width of 1st gasteric (postpetiolar) segment 0.35 mm; $1.4 \times$ as



Figs. 1-4. *Proceratium formosicola* sp. nov. — 1, Worker, head, frontal view; 2, worker, lateral view; 3, female, head, frontal view; 4, female, lateral view.

long as broad.

Head, alitrunk, petiole, and gaster shagreened; mandibles smooth, less punctated; clypeus very finely rugulose. Pilosity moderately long and abundant, distributed evenly over the entire body, including mandibles, antennae, and legs.

Color ferruginous yellow, mandibles reddish.

Female. HL 0.73 mm; HW 0.75 mm; SL 0.45 mm; CI 103; SI 60; WL 1.00 mm; AW 0.68 mm; PNL 0.20 mm; PH 0.50 mm; DPW 0.40 mm; TL *ca.* 2.8 mm.

Head as in Fig. 3; compound eyes prominent, about 0.18 mm in maximum diameter. Lateral shape of body as in Fig. 4; pronotum, scutum convex; axilla well convex; scutellum horizontal; propodeum with dull angle in postero-lateral border. Petiole like this of worker, but thinner at the upper of node. Dorsal width of 1st gasteric segment 0.65 mm; $1.2\times$ as long as broad. Sculpture, pilosity, and coloration as in worker.

Holotype: Worker, 15. VIII. 1980. Lushan (*ca.* 1000 m alt.), Nantou Hsien, Taiwan, M. TERAYAMA leg.

Paratypes: 2 workers (gaster lost in a worker), 1 female, (from the same nest as holotype): 1 worker, 4. VIII. 1981, Puli (*ca.* 600 m alt.), Nantou Hsien, Taiwan, M. TERAYAMA leg.

Type depository. The holotype is kept at the National Institute of Agro-Environment Sciences, and the paratypes at the Taiwan Agricultural Research Institute, and author's collection.

Relationships. BROWN (1958) divided the world *Proceratium* into 7 vague groups, and this species belongs to *Silaceum* group. Judging from the descriptions, *P. formosicola* is closely related to *P. longigaster* KARAWAJEW, *P. carnifrons* MENOZZI, and *P. japonicum* SANTSCHI by the shape of petiole and clypeus and the size of body. However, it is distinguished from *longigaster* by the convex occipital border of head, and from *carnifrons* and *japonicum* by the more convex dorsal outline of alitrunk and the thicker petiolar node.

References

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